



ANALYTIC LABORATORY
LIMITED LIABILITY COMPANY
TSENTR EKOLOGICHESKIKH ANALIZOV I RASCHETOV

Laboratory registered address: 1 "v" Nikitskaia str., office 310, 305029 Kursk
tel./fax (4712) 58-46-59, E-mail: ooo_ekocentr@mail.ru

Unique accreditation record number in accredited body register: No. RA. RU.515855

TEST (MEASUREMENT) REPORT

No. 0/827-20

Customer: ZAO SDM-Oryol

Customer registered address: 3 Kromskoie shosse, 302042 Oryol

Natural resource user registered address: ZAO SDM-Oryol, 3 Kromskoie shosse, 302042 Oryol

Natural resource user current address: ZAO SDM-Oryol, 3 Kromskoie shosse, 302042 Oryol

Test purpose: waste component identification, hazard class determination

Grounds for conducting tests: Agreement

Test item: waste (solid municipal waste sorting trail, grade A and B medical waste)

Aggregate state and physical form: solid loose material

Sampling organization: OOO Ecocentr Analytic Laboratory **Sampling report, sampling date:** No. 0/338-20 dated July 30, 2020

Sample No.: 0/827.

Laboratory activity address(es):

1) 18 Gaidara st., LET A, 305001 Kursk

(2) 23 2-ia Rabochaia st, LET A, 305044 Kursk

Test date: July 30, 2020 – August 3, 2020

Complementation, deviation or exception from the method: -

Information provided by the Customer: order

Additional information: test conditions comply with the requirements of regulatory documents for test methods and laboratory equipment operation requirements.

Description of measurement (test) methods, instrumentation applied:

Sr. No.	Determined parameter	Document procedure designation (measurement, analysis)	Instrumentation	Serial No, calibration validity
1.	Acute toxicity	ПНДФТ 14.1:2:3:4.12-06 Т16.1:2:2.3:3.9-06 (<i>Daphnia Magna Straus</i>)	-	-
2	Acute toxicity	ПНДФТ 14.1:2:3:4.10-04 Т 16.1:2:2.3:3.7-04 (<i>Chlorella Vulgaris Beijer</i>)	ИПС-03 Suspended matter density meter	No. 01030176 until December 15, 2020
3	Heavy metals (total)	ПНДФ 16.1:2.2:2.3:3.36- 02 (atomic absorption)	KVANT-2AT Atomic absorption spectrophotometer	545 until November 14, 2020
4	Heavy metals (total)	ПНДФ 16.3.24-2000 (atomic absorption)		
5	Mercury	ПНДФ 16.2.2:2.3:3.25-02 (cold vapour AAS)		
6	Arsenic	ПНДФ 16.1:2.2:3.17-98 (atomic absorption)		



ANALYTIC LABORATORY
LIMITED LIABILITY COMPANY
TSENTR EKOLOGICHESKIKH ANALIZOV I RASCHETOV

TEST (MEASUREMENT) REPORT 0/827-20

Sr. No.	Determined parameter	Document procedure designation (measurement, analysis)	Instrumentation	Serial No, calibration validity
7	Fluorides	М 3-2017 (potentiometric)	Anion 4110 Ion meter	549 until May 19, 2021
8	Hydrogen ion exponent (pH)	ПНД Ф 16.2.2:2.3:3.33-02 (potentiometric)		
9	Sulphur	ПНД Ф 16.1:2:2.2:3.37-2002 (turbidimetric)	КФК-2 Photoelectric colorimeter	8900276 until January 15, 2021
10	Nitrate nitrogen	ПНДФ 16.1:2:2.2:3.67-10 (photometric)		
11	Ammonia nitrogen	ПНДФ 16.2.2:2.3:3.30-02 (photometric)		
12	Chlorides	ПНДФ 16.2.2:2.3:3.28-02 (mercurometric)	Burettes accuracy grade as per GOST 20292-74	-
13	Ash mass fraction	ПНДФ 16.2.2:2.3:3.29-02 (gravimetric)	Lab scales ВЛР-200	269 until December 9, 2020
14	Silicon dioxide	ПНДФ 16.1:2:2.2:3.65-10 (gravimetric)		

Test results:

Sr. No.	Determined parameter, unit of measurement	Parameter value, ±A
1	Hydrogen ion exponent (pH), aqueous extract pH, pH unit	9.82±0.10
2	Zink (total), mg/kg	816±163
3	Lead (total), mg/kg	891±178
4	Magnesium (total), mg/kg	36190±10850
5	Calcium (total), mg/kg	202858±32457
6	Manganese (total), mg/kg	855±171
7	Copper (total), mg/kg	229±57
8	Nickel (total), mg/kg	717±143
9	Chromium (total), mg/kg	730±146
10	Cadmium (total), mg/kg	57±17
11	Iron (total), mg/kg	1705±256
12	Mercury, mg/kg	Less than 0.05
13	Arsenic, mg/kg	Less than 0.2
14	Silicon dioxide	12.7±6.3
15	Ash mass fraction, %	60.7±1.2
16	Ammonia nitrogen	Less than 20
17	Nitrate nitrogen, mg/kg	21.7±4.8
18	Sulphur, mg/kg	8684±1389
19	Fluorides, mg/kg	6.4±1.9
20	Chlorides, mg/kg	12287±614



ANALYTIC LABORATORY
LIMITED LIABILITY COMPANY
TSENTR EKOLOGICHESKIKH ANALIZOV I RASCHETOV

TEST (MEASUREMENT) REPORT 0/827-20

Component identification results:

Sr. No.	Component name	Content, %
1	Zinc (total)	0.0816
2	Lead (total)	0.0891
3	Magnesium (total)	3.62
4	Calcium (total)	20.28
5	Manganese (total)	0.0855
6	Copper (total)	0.0229
7	Nickel (total)	0.0717
8	Chromium (total)	0.0730
9	Cadmium (total)	0.0057
10	Iron (total)	0.171
11	Silicon dioxide	12.7
12	Ash mass fraction	60.7
13	Nitrate nitrogen	0.0022
14	Sulphur	0.868
15	Fluorides	0.0006
16	Chlorides	1.2287

Test results for test object — Daphnia Magna Straus:

Observation duration, h	Reciprocal dilution	Tested sample grade	NHRD* (10-48)
48	1	Acute toxic effect	31.6
	100	No acute toxic effect	

Test results for test object Chlorella Vulgaris Beijerinck:

Observation duration, h	Reciprocal dilution	Tested sample grade	TRD** (20-22)
22	1	Acute toxic effect	53.9
	100	No acute toxic effect	

*- non-hazardous reciprocal dilution

** - toxic reciprocal dilution



ANALYTIC LABORATORY
LIMITED LIABILITY COMPANY
TSENTR EKOLOGICHESKIKH ANALIZOV I RASCHETOV

TEST (MEASUREMENT) REPORT 0/827-20

The following has been determined:

Sample No. 0/827 corresponds to *grade four* environment hazard.

(Order of the Ministry of Natural Resources of the Russian Federation No. 536 dated December 04, 2014 On Approval of Criteria for Classifying Waste in Hazard Grades I-V According to the Degree of Adverse Effect on the Environment)

Note:

1. Report is executed in 1 counterparty and is held by the Customer.
Report scanned copy in electronic format is stored at OOO Ecocentr AL.

Report prepared by: Chief Specialist S.V. Chaplygina

Report approved by: Deputy Director — Analytic Laboratory Head

L.S.

Seal: FOR REPORTS

OOO ECOCENTR * KURSK

RUSSIAN FEDERATION * OGRN 1054639130061 / INN 4632057175

Report issue date: August 27, 2020

/signature/ I.V. Bolotaeva
(signature)

August 27, 2020
(date)

The Report shall not be reproduced in part without prior consent by OOO Ecocentr Analytic Laboratory